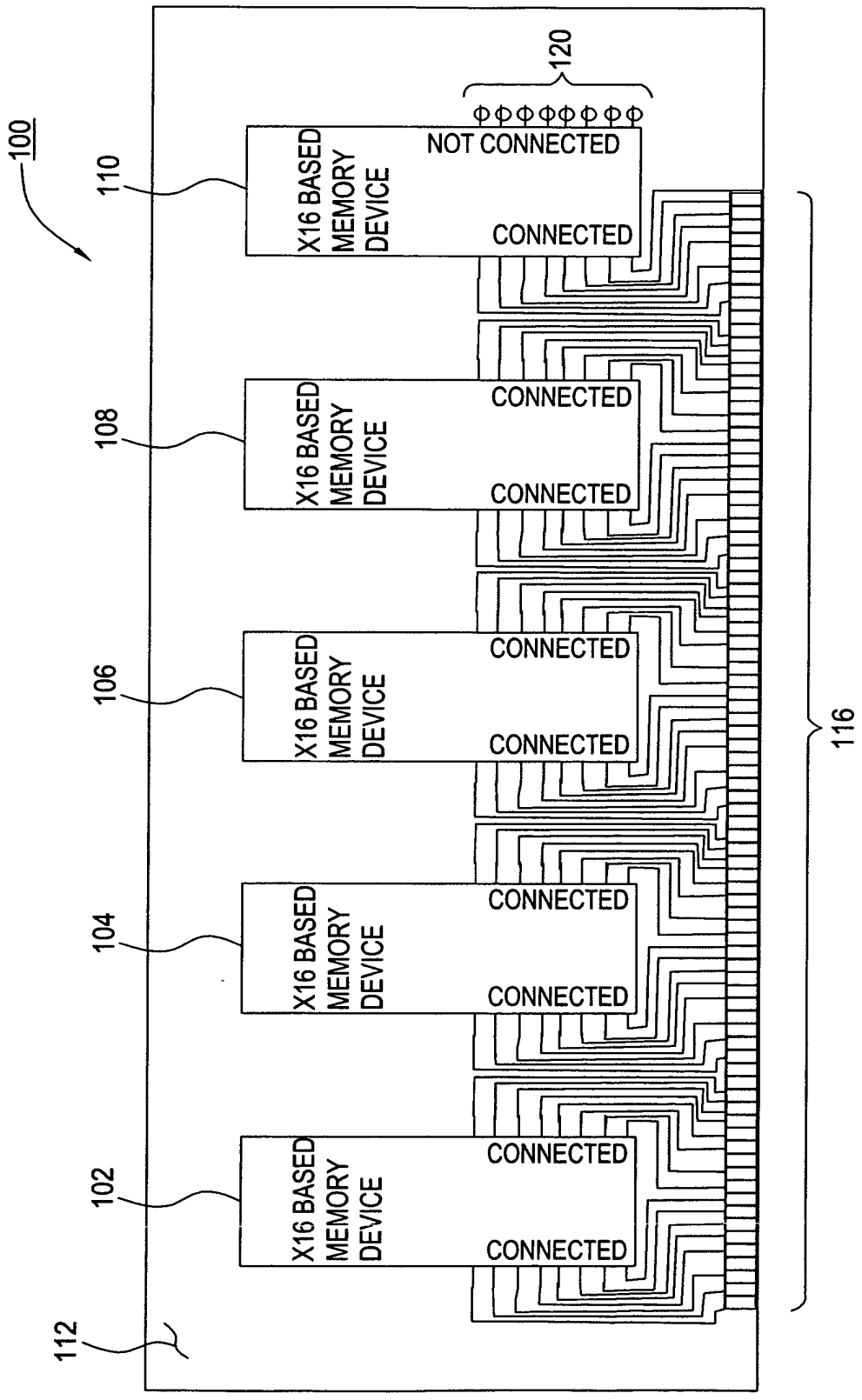

100
110
X16 BASED MEMORY DEVICE
120
NOT CONNECTED
CONNECTED
108
X16 BASED MEMORY DEVICE
CONNECTED
CONNECTED
106
X16 BASED MEMORY DEVICE
CONNECTED
CONNECTED
104
X16 BASED MEMORY DEVICE
CONNECTED
CONNECTED
102
X16 BASED MEMORY DEVICE
CONNECTED
CONNECTED
112
116

FIGURE. 1

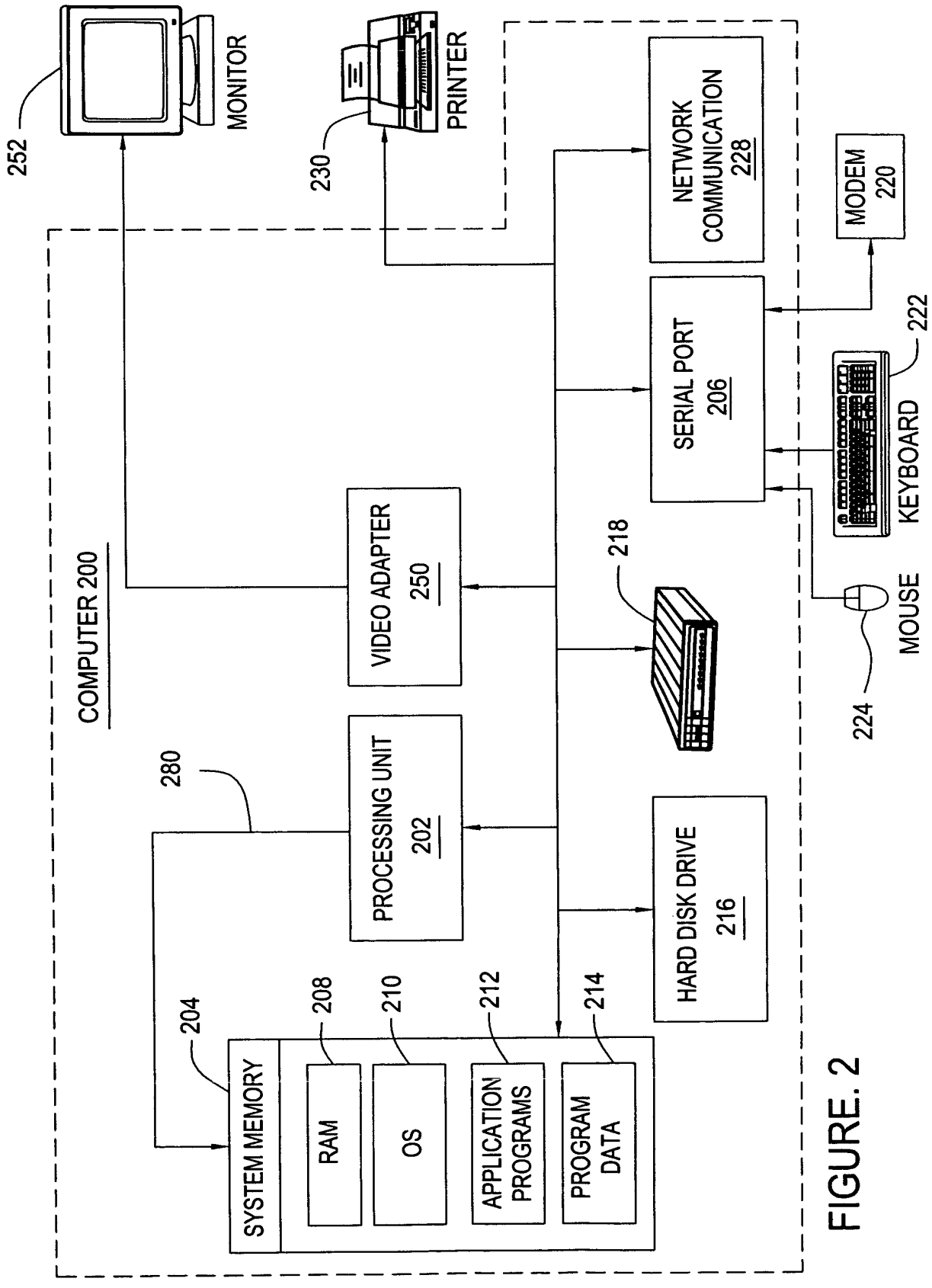

252
MONITOR
230
PRINTER
NETWORK COMMUNICATION 228
MODEM 220
SERIAL PORT 206
222
KEYBOARD
MOUSE
224
218
COMPUTER 200
VIDEO ADAPTER 250
280
PROCESSING UNIT 202
HARD DISK DRIVE 216
204
208
210
212
214
SYSTEM MEMORY
RAM
OS
APPLICATION PROGRAMS
PROGRAM DATA

FIGURE. 2

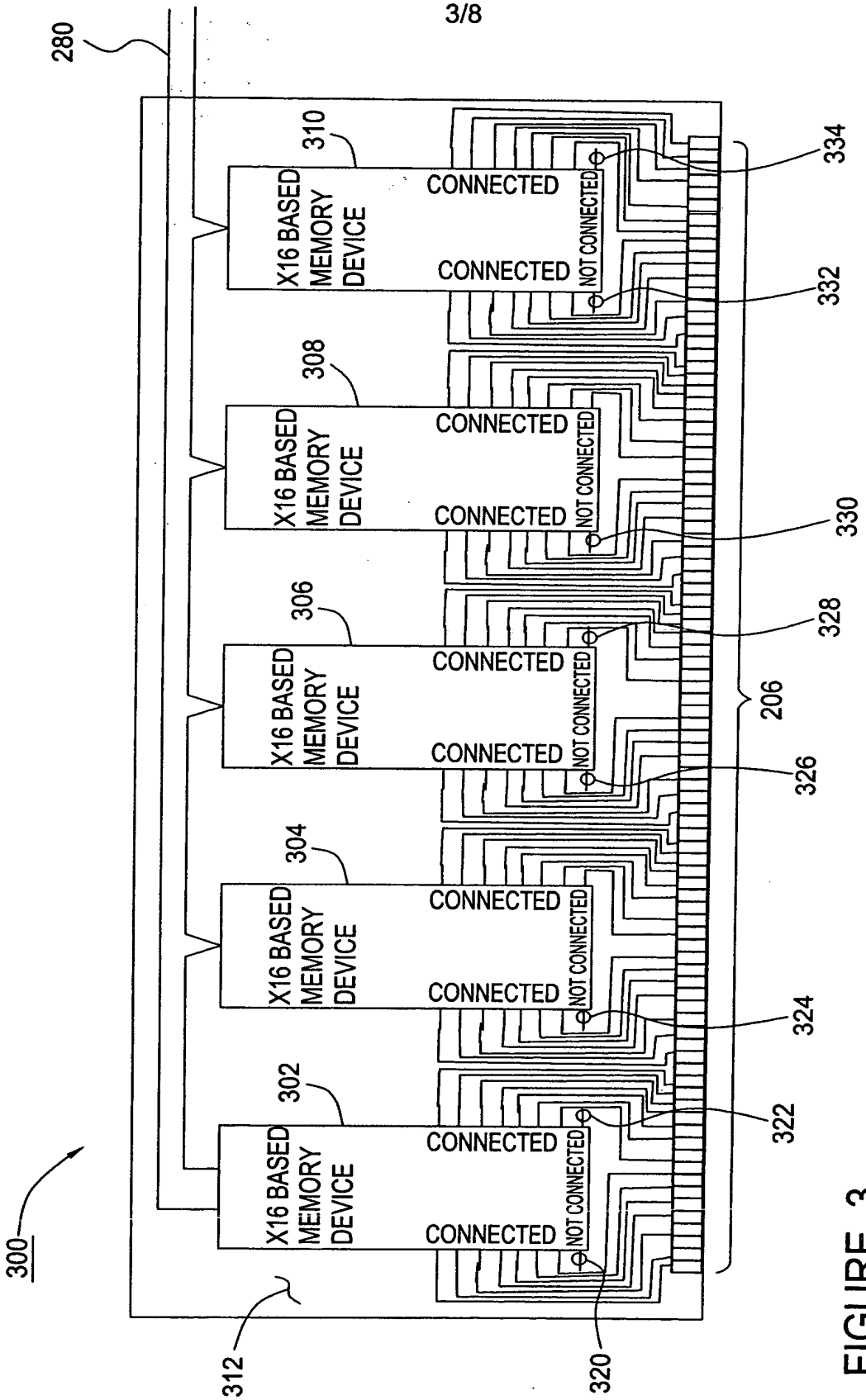

280
310
X16 BASED MEMORY DEVICE
CONNECTED
CONNECTED
NOT CONNECTED
334
332
308
X16 BASED MEMORY DEVICE
CONNECTED
CONNECTED
NOT CONNECTED
330
306
X16 BASED MEMORY DEVICE
CONNECTED
CONNECTED
NOT CONNECTED
328
326
206
304
X16 BASED MEMORY DEVICE
CONNECTED
CONNECTED
NOT CONNECTED
324
302
X16 BASED MEMORY DEVICE
CONNECTED
CONNECTED
NOT CONNECTED
322
300
312
320

FIGURE. 3

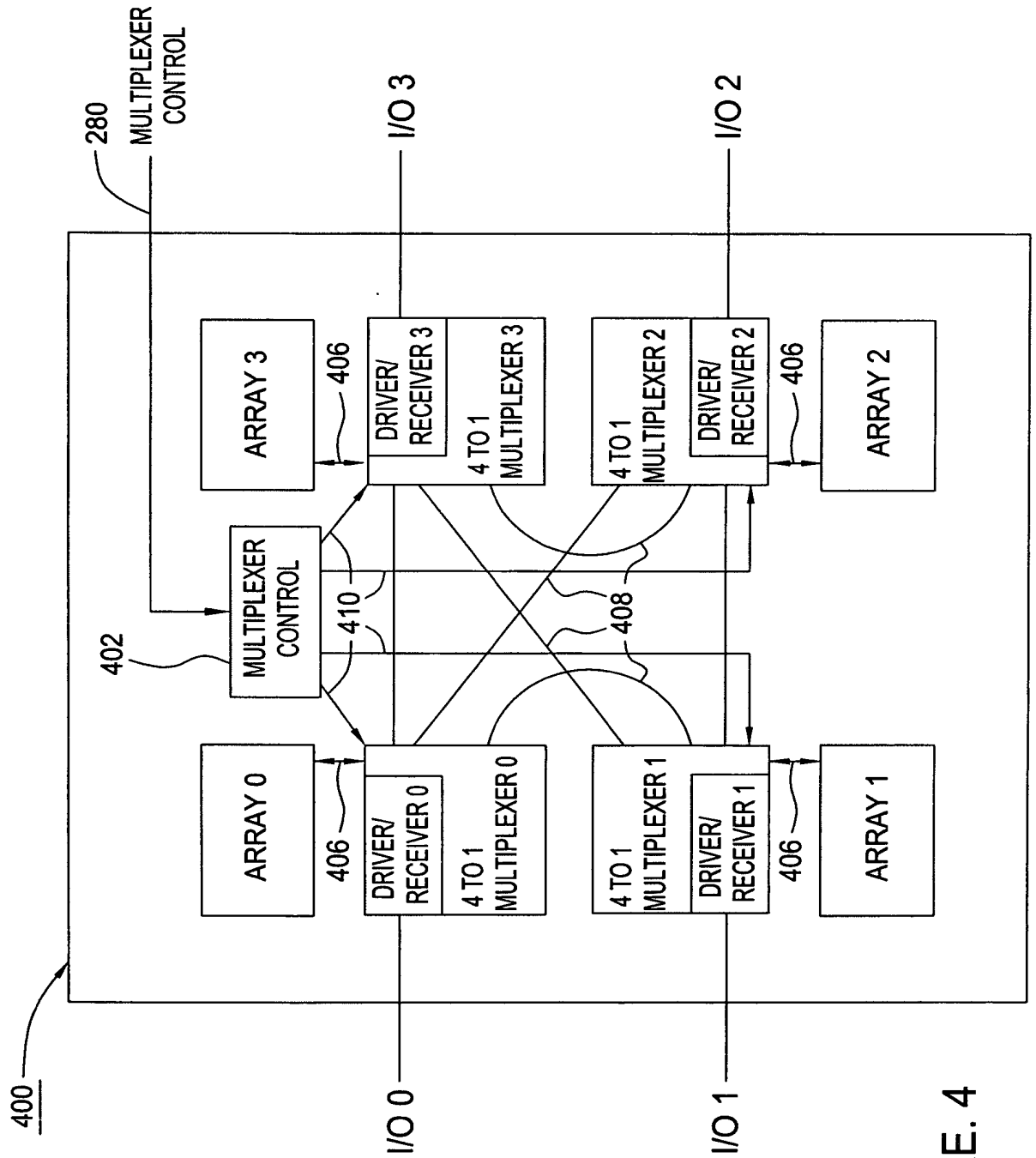
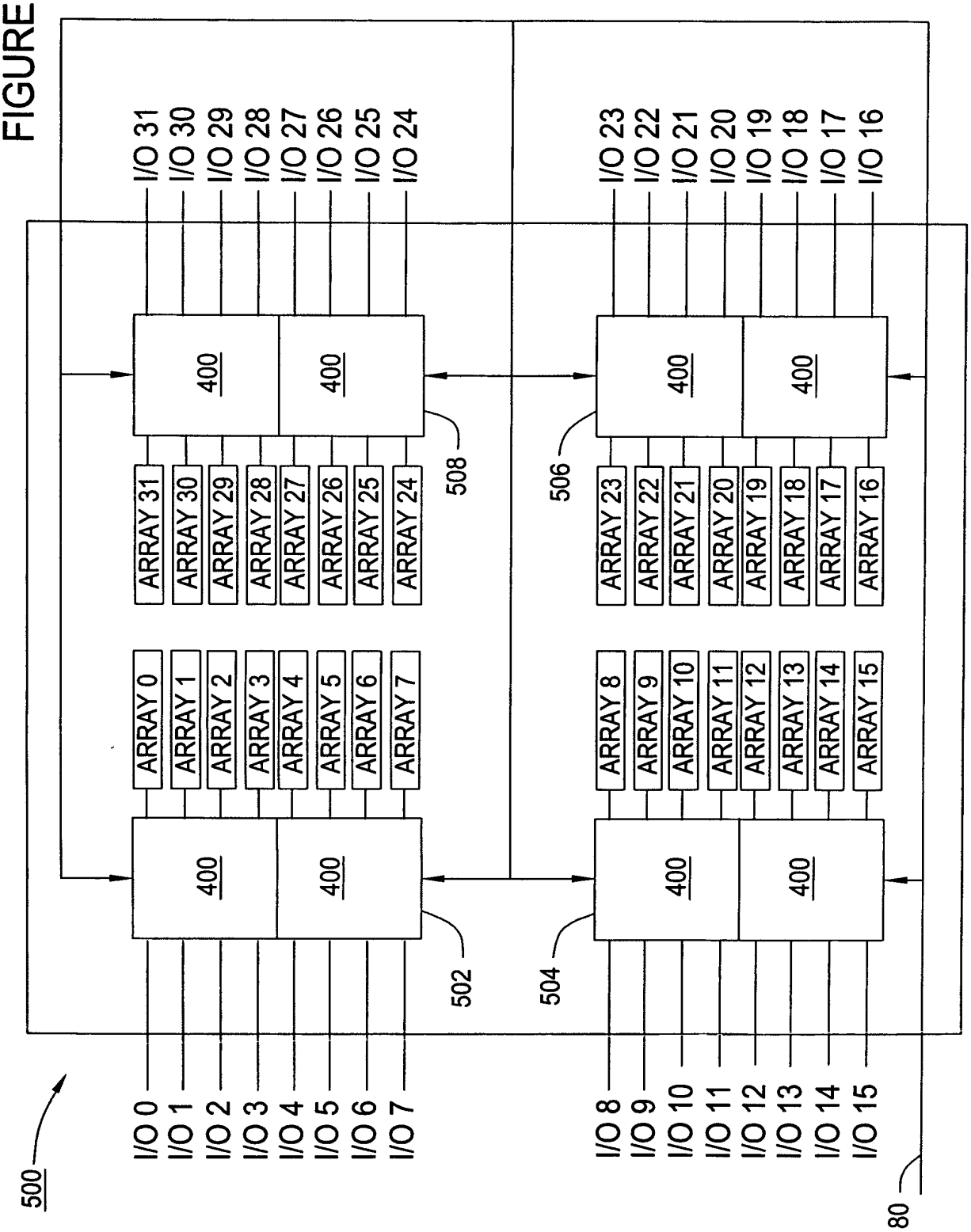

280
MULTIPLEXER CONTROL
I/O 3
I/O 2
ARRAY 3
406
DRIVER/ RECEIVER 3
4 TO 1 MULTIPLEXER 3
4 TO 1 MULTIPLEXER 2
DRIVER/ RECEIVER 2
406
ARRAY 2
MULTIPLEXER CONTROL
402
410
408
ARRAY 0
406
DRIVER/ RECEIVER 0
4 TO 1 MULTIPLEXER 0
4 TO 1 MULTIPLEXER 1
DRIVER/ RECEIVER 1
406
ARRAY 1
400
I/O 0
I/O 1

FIGURE. 4

FIGURE. 5


500
I/O 0
I/O 1
I/O 2
I/O 3
I/O 4
I/O 5
I/O 6
I/O 7
I/O 8
I/O 9
I/O 10
I/O 11
I/O 12
I/O 13
I/O 14
I/O 15
80
502
504
506
508
400
ARRAY 0
ARRAY 1
ARRAY 2
ARRAY 3
ARRAY 4
ARRAY 5
ARRAY 6
ARRAY 7
ARRAY 8
ARRAY 9
ARRAY 10
ARRAY 11
ARRAY 12
ARRAY 13
ARRAY 14
ARRAY 15
ARRAY 16
ARRAY 17
ARRAY 18
ARRAY 19
ARRAY 20
ARRAY 21
ARRAY 22
ARRAY 23
ARRAY 24
ARRAY 25
ARRAY 26
ARRAY 27
ARRAY 28
ARRAY 29
ARRAY 30
ARRAY 31
I/O 16
I/O 17
I/O 18
I/O 19
I/O 20
I/O 21
I/O 22
I/O 23
I/O 24
I/O 25
I/O 26
I/O 27
I/O 28
I/O 29
I/O 30
I/O 31

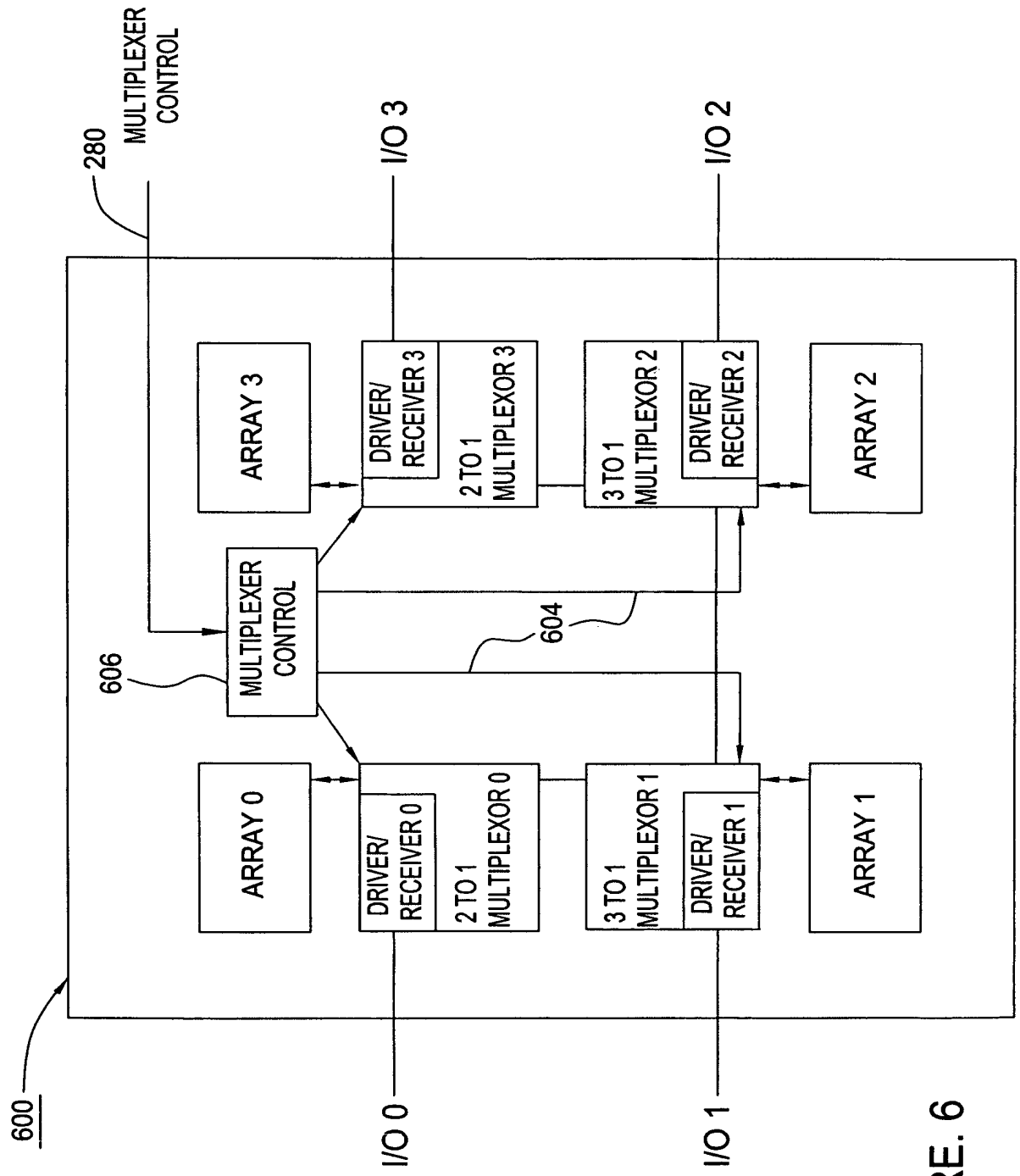

600
280
MULTIPLEXER CONTROL
I/O 3
I/O 2
I/O 0
I/O 1
ARRAY 3
DRIVER/ RECEIVER 3
2 TO 1 MULTIPLEXOR 3
3 TO 1 MULTIPLEXOR 2
DRIVER/ RECEIVER 2
ARRAY 2
MULTIPLEXER CONTROL
606
604
ARRAY 0
DRIVER/ RECEIVER 0
2 TO 1 MULTIPLEXOR 0
3 TO 1 MULTIPLEXOR 1
DRIVER/ RECEIVER 1
ARRAY 1

FIGURE. 6

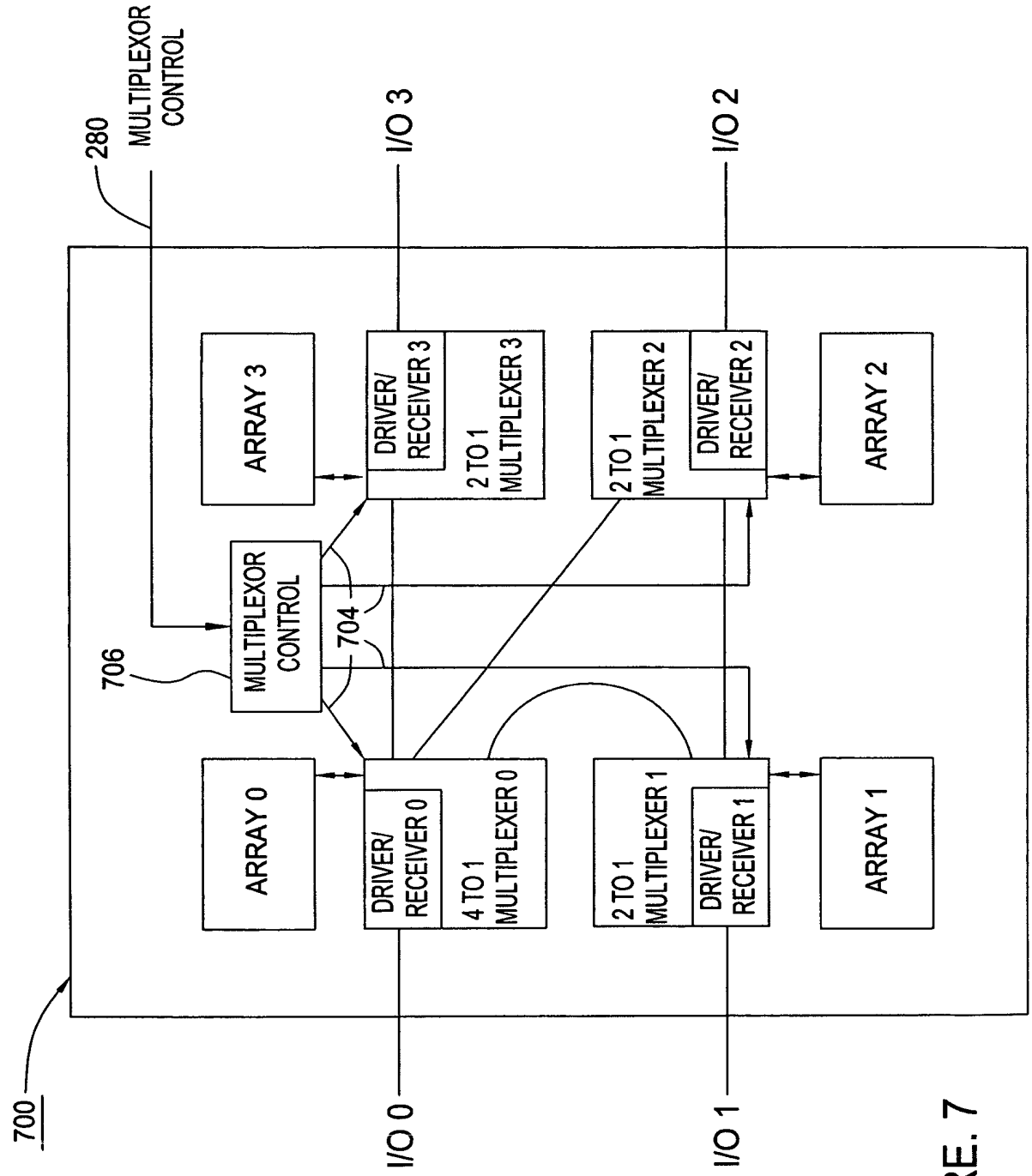

700
280
MULTIPLEXOR CONTROL
I/O 3
I/O 2
I/O 0
I/O 1
ARRAY 3
DRIVER/ RECEIVER 3
2 TO 1 MULTIPLEXER 3
2 TO 1 MULTIPLEXER 2
DRIVER/ RECEIVER 2
ARRAY 2
MULTIPLEXOR CONTROL
706
704
ARRAY 0
DRIVER/ RECEIVER 0
4 TO 1 MULTIPLEXER 0
2 TO 1 MULTIPLEXER 1
DRIVER/ RECEIVER 1
ARRAY 1

FIGURE. 7

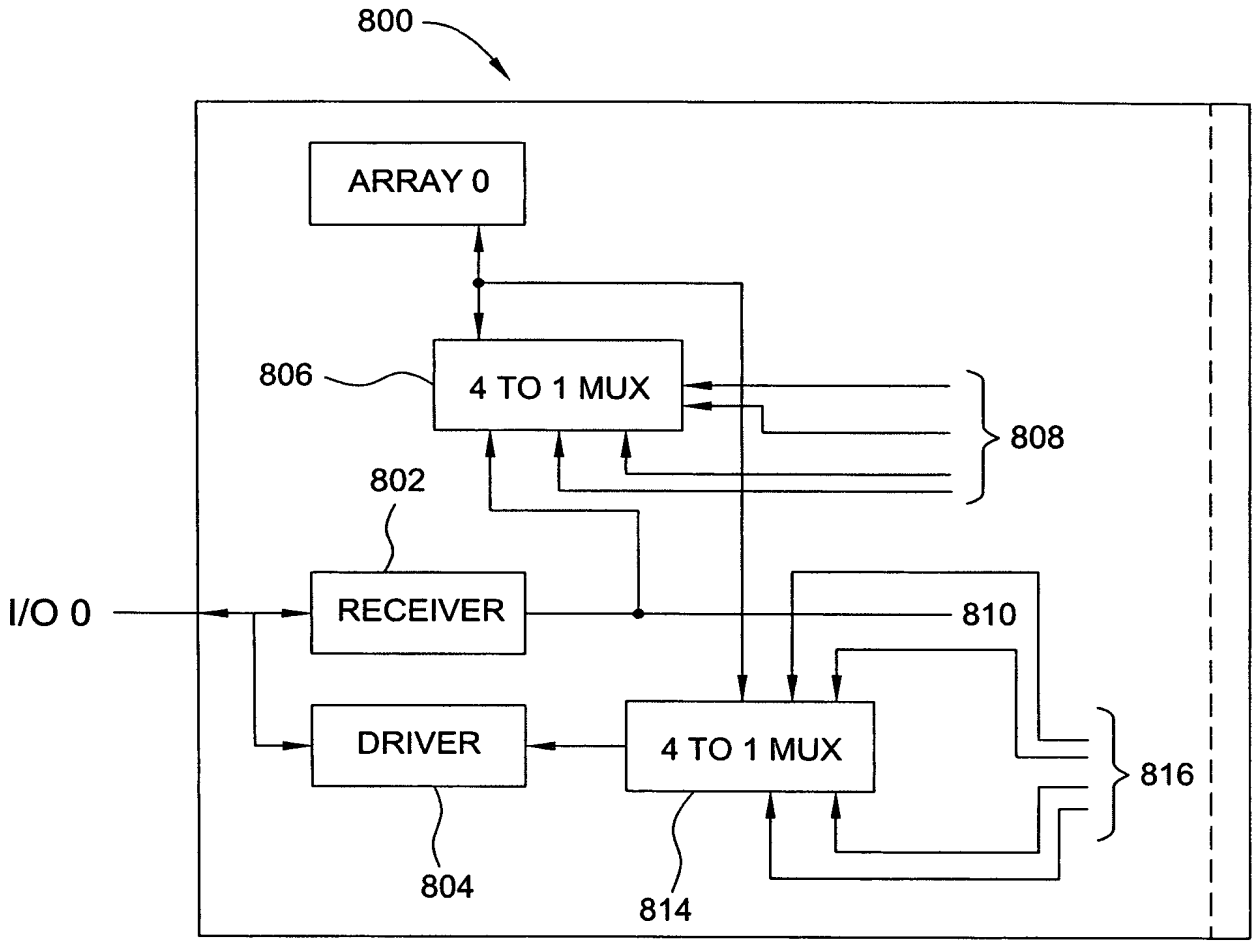

800
ARRAY 0
806
4 TO 1 MUX
808
802
I/O 0
RECEIVER
810
DRIVER
4 TO 1 MUX
816
804
814

FIGURE. 8